

WHAT IS CLAIMED IS:

1. A glow plug comprising:

a tubular, metallic shell having an external-thread portion formed on an outer circumferential surface of the metallic shell so as to allow the glow plug inserted into a plug-mounting hole formed in an engine head to be mounted in the engine head through screwing the external-thread portion into an internal-thread portion formed in the plug-mounting hole;

a metallic, tubular member coaxially joined to the metallic shell such that the distal end of the metallic, tubular member protrudes from a distal end of the metallic shell; and

a shaft-like heater fixedly provided in the metallic, tubular member such that a distal end of the heater protrudes from a distal end of the metallic, tubular member, the heater including a resistance-heating element embedded in a distal end portion of the heater and adapted to generate heat when electrically energized, wherein

the metallic, tubular member comprises an annular protrusion formed on its outer circumferential surface in such a manner as to protrude radially outward and to annularly extend in a circumferential direction; and the metallic, tubular member is joined to the metallic shell while a distal end face of the metallic shell or a

distally-facing end face of the metallic shell in the vicinity of the distal end of the metallic shell abuts a rearward-facing end face of the annular protrusion).

2. A glow plug according to claim 1, wherein the metallic, tubular member comprises a tubular portion extending coaxially rearward from the rearward-facing end face of the annular protrusion; and an inner circumferential surface of a distal end portion of the metallic shell is fitted to an outer circumferential surface of the tubular portion.

3. A glow plug according to claim 1, wherein the annular protrusion comprises an annular flange portion formed on the outer circumferential surface of the metallic, tubular member in such a manner as to protrude radially outward, and a tubular portion extending coaxially rearward from an outer circumferential edge portion of the annular flange portion; and

the metallic, tubular member and the metallic shell are joined such that an outer circumferential surface of a distal end portion of the metallic shell is fitted into an inner circumferential surface of the tubular portion, and the distal end face of the metallic shell abuts a rearward-facing end face of the annular flange portion.

4. A glow plug according to claim 1, wherein the annular protrusion comprises an annular flange portion formed on the outer circumferential surface of the metallic, tubular member in such a manner as to protrude radially outward, and a tubular portion extending coaxially rearward from an outer circumferential edge portion of the annular flange portion; and

the metallic, tubular member and the metallic shell are joined such that an outer circumferential surface of a distal end portion of the metallic shell is fitted into an inner circumferential surface of the tubular portion, and a distally-facing end face of the metallic shell in the vicinity of the distal end of the metallic shell abuts a rearward-facing end face of the tubular portion.

5. A glow plug according to claim 1, wherein a distally-facing end face of the annular protrusion is tapered convergently in a distal direction.

6. A glow plug according to claim 1, wherein the distally-facing end face of the annular protrusion is located distally of two electrodes of the heater.

7. A glow plug according to claim 1, further comprising a rotation-stop joint structure formed such that a protrusion is formed on at least one of two joint surfaces joining the metallic, tubular member and the metallic shell, and functioning such that, when the metallic, tubular member and the metallic shell are joined, one joint surface in contact with the other joint surface having the protrusion is deformed according to the protrusion to thereby prevent relative rotation between the metallic, tubular member and the metallic shell about an axis.

8. A glow-plug-mounting structure in which a glow plug according to claim 1 is mounted in the engine head such that the glow plug is inserted into the plug-mounting hole formed in the engine head, and the external-thread portion formed on an outer circumferential surface of the metallic shell is screwed into the internal-thread portion formed in the plug-mounting hole so as to press the glow plug against an annular seat face formed in the plug-mounting hole at a position located deeper toward an engine combustion chamber than the internal-thread portion and having an inside diameter smaller than an internal-thread diameter of the internal-thread portion, thereby positioning the glow plug and maintaining gastightness;

wherein the glow plug is mounted in the engine head such that the glow plug is screwed, via the external-thread portion, into the internal-thread portion in the plug-mounting hole formed in the engine head so as to press the distally-facing end face of the annular protrusion of the metallic, tubular member against the annular seat face in the plug-mounting hole.